

REMARKS/ARGUMENTS

Claims 1-13 are pending and stand rejected in the above-captioned application. Claims 3 and 4 have been withdrawn.

I. Restriction Requirement

In accordance with the provisional election made on January 27, 2004, Applicants confirm that they have elected to prosecute the claims covering the species embodied by claim 2 if no generic claim is held to be allowable. Applicants agree with the Examiner that claims 1 and 10 are generic. Applicants assert that claims 5-9 and 11-13 are also generic. Accordingly, Applicants assert that the prosecution of claims 1,2, and 5-13 is consonant with the restriction requirement. Applicants would also like to confirm that no correction to the inventorship is required to prosecute those claims.

Applicants request that if claim 1, which is generic, is allowed that the Examiner reconsider claims 3 and 4, which are dependent from claim 1.

II. Rejections Under 35 U.S.C. §112

Claims 2 and 7-9 were rejected under 35 U.S.C. §112 as being indefinite. The amendments made to those claims have eliminated the grounds for the indefiniteness rejections. Specifically, the references to a “first substrate” in claims 2 and 7-9 have been replaced with references to the “first substrate layer” mentioned in claim 1. Similarly, all references to a “second substrate” have been replaced with references to the “second substrate layer” first mentioned in claim 7. The reference to a “first groove” has been eliminated from claim 7. Claims 7-9 now depend from existing claims. Finally, the references to a “capillary element” have been eliminated from claims 7 and 8, while the first reference to a “capillary element” in claim 9 does not require an antecedent basis.

III. Rejections Under 35 U.S.C. §102

Claims 1, 2, 5, 6 and 10 were rejected under 35 U.S.C. §112 as allegedly being anticipated by U.S. Patent No. 5,890,745 (“Kovacs”). Applicants assert that Kovacs does not anticipate amended claim 1. Support for the amendments to claim 1 can be found, *inter alia*, in

the Application on pg. 12 line 17 – pg. 13 line 22. If claim 1 is allowable over Kovacs, then the narrower claims depending on claim 1, such as claims 2, 5, and 6, are also allowable.

Applicants also assert that Kovacs does not anticipate amended claim 10. Support for the amendments to claim 10 can be found, *inter alia*, in the Application on pg. 14 line 24 – pg. 15 line 20, and in Figure 7. If claim 10 is allowable over Kovacs, then the narrower claims depending on claim 10 should also allowable.

Claim 1 has been amended to include the steps of aligning a tool with the alignment structure, and forming an aperture in the first substrate layer with the tool. It appears that Kovacs does not disclose processes in which tools (such as a drill) are used to form apertures in a substrate layer. Instead, Kovacs only appears to disclose the formation of apertures by etching through a mask. Since the mask itself provides the necessary alignment for the etch processes in Kovacs, there is no disclosure, or even a suggestion, of the formation of an additional alignment structure to facilitate the alignment of a tool that will be used to form an aperture in a substrate layer. Thus Kovacs cannot anticipate amended claim 1.

Claim 10 has been amended to require that a notch in the first substrate layer and a notch in the second substrate layer circumscribe a single opening when the first and second substrate layers are bonded together. Although Kovacs may disclose structures in which an aperture extending through one substrate layer is aligned with an aperture extending through another substrate layer, Kovacs does not appear to disclose a structure in which an opening is formed by aligning grooves formed in two different substrate layers. The limitations in amended claim 10 requiring that a “single opening” be formed when the first and second substrate layers are bonded together, and that the single opening be circumscribed (i.e. defined and bounded by) notches in *both* the first and second substrate layers, should differentiate the subject matter disclosed in Kovacs from the subject matter covered by amended claim 10 because Kovacs does not disclose such a structure.

IV. Rejections Under 35 U.S.C. §103

Claims 7-9, 11, and 12 were rejected under 35 U.S.C. §112 as allegedly being unpatentable over Kovacs in view of U.S. Patent No. 5,876,675 (“Kennedy”). The rejection of claims 7-9 appears to be based on the argument that if claim 1 is anticipated by Kovacs, then the additional limitations in claims 7-9 are rendered obvious by the teachings of Kennedy.

Applicants assert that since amended claim 1 is not anticipated by Kovacs, the combination of Kovacs and Kennedy cannot render amended claims 7-9 obvious.

The obviousness rejection of claims 11 and 12 appear to be based on similar logic: that Kovacs anticipates claim 10, and that the additional limitations in claims 11 and 12 are rendered obvious by the teachings of Kennedy. Applicants assert that since amended claim 10 is not anticipated by Kovacs, the combination of Kovacs and Kennedy cannot render amended claims 11 and 12 obvious.

Finally, claim 13 stands rejected as allegedly being unpatentable over the combination of Kovacs, Kennedy, and U.S. Patent 6,379,929 ("Burns"). Again, if Kovacs does not anticipate claim 10, and if the combination of Kovacs and Kennedy does not render claim 12 obvious, then the combination of Kovacs, Kennedy, and Burns cannot render claim 13 obvious.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe that the present application is in condition for allowance and action toward that end is respectfully requested. If the Examiner believes that a telephone interview would expedite the examination of this application, the Examiner is requested to contact the undersigned at the telephone number below.

Respectfully submitted,



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I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on **September 15, 2004** by **Michael Moores**.

Signed:

